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The Second Best Thing About Payday

nih record

ABOVE • *A vintage bicycle was among the attractions at Bike to Work Day. See story below.*

features

departments

Warm, Gracious Ceremony

Official Portrait of Former Director Zerhouni Presented

By Rich McManus

The portrait constructed of words—even the ones razzing him for his taste in fine clothes and fast cars—had to be at least as satisfying to former NIH director Dr. Elias Zerhouni as the one completed with brushstrokes, as he returned to campus May 20 to preside over the presentation of his official portrait in Bldg. 1.

NIH director Dr. Francis Collins (l) and Dr. Nadia Zerhouni undraped the official portrait of Dr. Elias Zerhouni.

At a 50-minute ceremony in Wilson Hall, a gathering of past and present institute, center and Office of the Director officials embellished the image of Zerhouni—whom artist Steve Craighead had placed standing and smiling alongside a desk—with warm evocations of the former director's character and intellect.

"Elias has been gone from NIH for 2½ years, but his impact is with us every day,"

SEE **ZERHOUNI,** PAGE 6

NCI director Dr. Harold Varmus (l) and NIH director Dr. Francis Collins share a light moment after both gave brief remarks to those who pedaled to work on May 20.

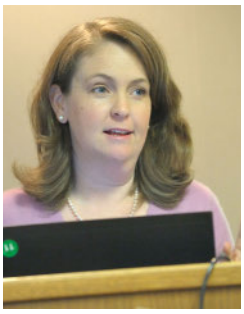
Different Spokes for Different Folks

Hundreds of NIH Cyclists Enjoy 2011 Bike To Work Day

By Susan Johnson

Despite the pervasive thunderstorms leading up to 2011's Bike to Work Day, the morning of May 20 was perfect for the record 11,000 two-wheeled commuters around the D.C. region. NIH's nearly 700 participants were treated to cool weather, a bright blue sky and

SEE **BIKE TO WORK,** PAGE 8



Dr. Laura Lyman Rodriguez

STEP Forum Looks at DNA Sequencing and Its Role in Patient Care

By Trisha Comsti

Our genes can tell us a lot of things. They can tell us the likelihood of developing cancer or heart disease. They can tell us how we might react to drugs and treatments. And now, thanks to new advances in DNA sequencing, our genes can tell us more than ever before.

The speakers at a recent Staff Training in Extramural Programs forum, "Knowing Our DNA Sequence: What It Means for You and Me," used the image of water gushing from a hose to demonstrate the vast amount of information now available based on a person's genome—the DNA sequence that makes each of us unique.

"Ultimately, we want to help the physician

SEE **DNA SEQUENCING,** PAGE 4

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briefs

Astronaut Searfoss To Give DDM Seminar

The Deputy Director for Management (DDM) announces the fourth DDM seminar of the 2010-2011 series "Management and Science: Partnering for Excellence." The event on Thursday, June 16 from 11 a.m. to 12:30 p.m. in Masur Auditorium, Bldg. 10, will feature Ret. Col. Rick Searfoss, former commander of the NASA-NIH Joint Space Mission. He will present "Apogee: Take Your Team to the Top." Searfoss will speak about leadership, personal excellence, customer service and teamwork.

Videocasting and sign language will be provided. Individuals who need reasonable accommodation to attend should call (301) 496-6211 or the Federal Relay Service at 1-800-877-8339. For more information about the series, visit www.ddmseries.od.nih.gov or call (301) 496-3271.

Camp Fantastic BBQ Set for June 14

The Recreation & Welfare Association will host the annual Camp Fantastic BBQ on Tuesday, June 14, on the Bldg. 31A patio from 11:30 a.m. to 1:30 p.m. R&W has been spearheading this event since the camp was established in 1983. Camp Fantastic provides quality programs for children living with cancer. Enjoy an afternoon of good food, live music, dancing, games and more. Lunch will be served in two shifts and includes choice of two sandwiches, chips, coleslaw, a drink and funnel cake. Tickets are $10 per person. To order tickets stop by any R&W store or call (301) 496-4600.

IntraMall Summer Showcase, June 15-16

The 13th annual NIH IntraMall Summer Showcase will be held in the South Lobby of Bldg. 10 on June 15-16. The IntraMall is an electronic site designed to simplify purchasing. Since opening in June 1998, the IntraMall has become a leading NIH web site for using government purchase cards to locate, buy and track purchases from over 250 of its most frequently used suppliers, offering over 11 million laboratory, office and computer items. Register for the event and a free lunch at www.intramalls.com/showcase. If you require reasonable accommodation to participate, call (888) 644-6255.

OppNet Celebrates Outgoing Chairs

NIH's Basic Behavioral and Social Science Opportunity Network (OppNet) recently celebrated the term completion of its coordinating committee co-chairs, Drs. Paige Green McDonald (r) and Deborah Olster (l). McDonald, chief of the Basic and Biobehavioral Research Branch, NCI, served from April 2010 through April 2011. Olster, deputy director of the Office of Behavioral and Social Sciences Research, served from January 2010 to January 2011. OppNet facilitator Dr. William Elwood (second from l) presented certificates of appreciation to the outgoing chairs in the presence of incoming committee co-chair Dr. Santa Tumminia (third from l), a senior advisor at the National Eye Institute. For more information on OppNet, visit oppnet.nih.gov.

Goldstein Wins Ahrens Award

Dr. David S. Goldstein, founder and head of the clinical neurocardiology section of the NINDS Intramural Division, recently received the Edward H. Ahrens, Jr. Award from the Association for Patient-Oriented Research (APOR). The award recognizes senior investigators whose innovative research or education leadership has had a major impact on clinical and translational science. Goldstein was honored for his outstanding research on clinical catecholamine neurochemistry and his contributions to establishing clinical neurocardiology as a medical and scientific discipline. He received the award in Washington, D.C., at a recent joint meeting of the Association for Clinical Research Training, the Society for Clinical and Translational Science and the American Federation for Medical Research, in association with APOR.

Veteran science journalist Maggie Fox

Avoiding the Jargon Trap

Plain Language Keynoter Urges the Courage to Be Imprecise

En route to the 2011 NIH Plain Language and Clear Communication award ceremony, a mysterious "thorium-based fuel cycle" stopped veteran science journalist Maggie Fox in her tracks.

"My mind completely closed," she said in her keynote address, recalling the moment when this jargon dropped into the interview playing over her car radio.

This was an example of "a missed opportunity" for communication, said Fox, managing editor for technology and health care at the National Journal Group. She asked her audience of NIH science communicators to avoid the on-air physicist's mistake in word choice. She emphasized that they should weigh the accuracy of their words against the clarity of their meaning.

"Be brave enough to drop the precision," urged Fox; non-experts don't need to understand all the nuances of a scientific journal article. She lamented that unnecessary terms that few actually understand—like "antiretroviral drugs"—are now in everyday use because journalists faithfully passed on the jargon they've heard. (Simply "AIDS drugs" would have been enough, she insisted.)

The 11th annual award ceremony—held on May 17 and presided over by NIH principal deputy director Dr. Lawrence Tabak, with a cameo appearance via video by NIH director Dr. Francis Collins—honored 195 articles, web sites, exhibits and other products that met Fox's challenge.

With a record-breaking 427 entries, this year's competition, sponsored by the Office of Communications and Public Liaison, OD, demonstrated NIH's continued movement towards plain language in communication. During her address, Fox praised the several hundred awardees for illustrating how much the research community has learned in recent years about the value of communicating well.

Its institutional commitment to clarity made NIH science a joy to cover, said Fox, whose experience in health and science journalism began with Reuters and has continued with the *National Journal*. In addition to the science beat, she has also reported on location from major international incidents such as the Tiananmen Square protests.

"People at NIH have taken the time to explain things to me," she recalled. Staff would help her choose the best analogy to explain a certain technical idea, she said, because they understood that engaging language would get the information across the best.

The Plain Writing Act of 2010 was signed into law last October, promoting the use of clear communication practices throughout the federal government. For more information on plain language at NIH, visit www.nih.gov/clearcommunication/plainlanguage.htm.—**Susan Johnson**

Ferrara To Deliver 2011 NEI's Sayer Vision Research Lecture

Dr. Napoleone Ferrara, winner of a 2010 Lasker Award, will deliver the fifth Sayer Vision Research Lecture on Thursday, June 30 at 1 p.m. in Masur Auditorium, Bldg. 10. His talk is titled "Basic Science and Clinical Application of VEGF."

Ferrara, a fellow at Genentech, Inc., has spent nearly 30 years working to understand the mechanisms of angiogenesis (formation of new blood vessels). Early in his career, he played a key role in isolating and cloning vascular endothelial growth factor (VEGF). After Ferrara and colleagues showed that VEGF inhibition suppressed the growth of tumors in animal studies, they developed an anti-VEGF antibody, called bevacizumab, to treat cancer. This treatment impedes a tumor's blood supply, limiting tumor growth and metastasis.

Ferrara's laboratory also identified the role of VEGF in abnormal blood vessel growth in eye diseases such as wet age-related macular degeneration (AMD), a leading cause of vision loss in older Americans. This finding led to the development of an anti-VEGF antibody fragment called ranibizumab, an FDA-approved compound that can significantly improve the sight of patients with wet AMD and reduce the risk of further vision loss.

For his basic research findings and for developing an effective wet AMD treatment, Ferrara was honored with the 2010 Lasker-DeBakey Clinical Medical Research Award. His laboratory is currently expanding its scope to investigate other tumor growth factors, in particular those produced by myeloid cells and fibroblasts.

For more information about the Sayer Vision Research Lecture and Award, visit www.nei.nih.gov/news/special/sayer.asp.

DNA SEQUENCING

CONTINUED FROM PAGE 1

Top, l:
Dr. Marc Williams of the Intermountain Healthcare Genetics Institute in Salt Lake City pointed out obstacles to translation of clinical research.

Top, r:
Participants at the recent STEP session on DNA and medicine included (from l) Flavia Facio, Williams, Rodriguez, Dr. John Belmont, Dr. Sara Hull and Rebecca Fisher.

PHOTOS: ERNIE BRANSON

understand what this information means, help guide our care and make the information meaningful so it can be implemented and used in clinics," said Dr. Laura Lyman Rodriguez, director, Office of Policy, Communications and Education, National Human Genome Research Institute.

The forum explored genome sequencing technology and how it fits into "personalized medicine," which Rodriguez defined as "health care tailored to the individual."

"We've always been doing personalized medicine," said Dr. John Belmont, professor in the department of molecular and human genetics at Baylor College of Medicine. "And genomics is a new, powerful tool for achieving careful and improved care."

What does genomics bring to the table? Prevention, improved health through targeted medicine and reduced cost of care, according to Belmont.

He gave examples of how genomics is contributing to disease prevention. One recent project combined known risk factors (such as family history, lifestyle and age) together with biomarkers from genomic testing to refine screening for atherosclerosis, the blocking of the arteries that is typically the cause of heart disease.

Flavia Facio, a genetic counselor at NHGRI, also discussed atherosclerosis in relation to her work on ClinSeq, a large-scale genome sequencing project that seeks to uncover the gene variations behind the disease.

Another study showed that one gene variation can determine a person's reaction to warfarin, a commonly prescribed anticoagulant drug. This information could help eliminate the estimated 43,000 yearly emergency room visits due to warfarin complications.

Dr. Marc Williams, of the Intermountain Healthcare Clinical Genetics Institute in Salt Lake City, pointed out that there are obstacles in moving science from the lab to actual improved patient care. "Implementation is a problem. It takes too long. The system is resistant to change even though the science is there," he said.

Doctors often do not have time to go out and research every disease and health problem. In light of this, Williams suggests the "intelligent use of electronic health records" in the form of an automated system that would alert physicians about potential health problems in their patients. Such a system would eliminate the step of doctors needing to actively seek out and then interpret genomic data.

There are ethical issues to be aware of as well. "Genomic research is not yet equivalent to genomic medicine," said Dr. Sara Hull, director of the bioethics core, NHGRI.

Using hypothetical scenarios, Hull described how the medical community must take into consideration issues like the role of race and ethnicity and fair access to information.

Currently, it costs around $20,000 to have your genome mapped and scientists are working on getting the price down to $1,000. Once the price drops, the information will be more readily available to everyone, but it will still take much longer for researchers and clinicians to fully understand the meaning of the vast amount of information contained in an individual's genomic sequence.

Baylor's Belmont said, "Genomics is a new, powerful tool for achieving careful and improved care."

Rebecca Fisher, a patient advocate at the Clinical Center and breast cancer survivor, spoke last and described her experience of being "one of personalized medicine's earliest experiments." She described how her family, which has a history of breast cancer going back several generations, had to fend for themselves for several decades in finding information about cancer and figuring out if they were at risk of developing it.

The day the "secret sauce" of physicians was no longer secret, according to Fisher, was "June 24, 1997—the day Medline became available on the Internet." With the advent of online searching, she and many other knowledge-seeking individuals became advocates for their own health, often serving as educators to their physicians.

Fisher believes all the information online, and within each of our DNA sequences, has the potential to change lives for the better. She emphasized the importance of genomic research being carried out by scientists at NIH. "Every single moment of your work here matters to an individual somewhere."

Past PAESMEM awardees discuss the importance of mentoring at all levels among science, technology, engineering and mathematics students.

PHOTOS: LESIA L. CRUMPTON-YOUNG

NIAID Hosts STEM Mentoring Workshop

By Marci Karth Better

No one knows the incredible challenges and the deep-rooted rewards of mentoring young science students better than participants of a recent workshop hosted by NIAID. The group consisted of past awardees of Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM), who met to discuss how science, technology, engineering and mathematics (STEM) mentoring could be expanded to reach more students who need it.

Closing gaps in STEM education among underrepresented populations remains a continuing goal for NIAID's Office of Training and Diversity, which sponsored the meeting along with the National Science Foundation and the University of Central Florida.

Discussions centered on ideas to establish a mentoring community that can serve as a national resource for enhancing STEM education at all levels.

"Mentoring our younger generation and encouraging their interest in remaining in science is crucial not only to our institute's long-range research program, but also to our nation's health," said Dr. Wendy Fibison, associate director of OTD. "Our workforce must reflect the full diversity of our population if we are to successfully meet today's public health challenges. This workshop is taking an important step in ensuring that mentoring plays a prominent role in educating tomorrow's innovators."

Participants agreed on the need for an independent organization to influence national policy and advocate for mentoring and to broaden visibility of mentoring as a critical component of STEM education. This national resource would draw on the expertise of recognized mentors, both individuals and organizations. Fully developed, the resource would be a repository for best practices in mentoring and would serve as a forum for the exchange of ideas and collaboration.

Said Fibison, "This national resource will help spread the word on the value of mentoring. Having readily available resources to create mentoring programs and enhance our mentors' skills will ensure that it happens."

This past January, President Obama named 11 individuals and four organizations as recipients of this year's PAESMEM. Administered by NSF, PAESMEM awards recognize the vital role that mentoring plays in the academic and personal development of students studying science and engineering—particularly those who belong to groups that are underrepresented in these fields. Since 1996, these awards have been made annually.

ZERHOUNI

CONTINUED FROM PAGE 1

***Above**:*
Former NIH director Dr. Elias Zerhouni divulged his "Zerhouni Strategy" for dealing with the institute/center directors, which he had once characterized as being "like herding cats": "The best strategy to herd cats is to bring fish…[but] I had no fish. So I came up with the strategy of stealing the fish from each cat," resulting in what is now known as the Common Fund. At right, Dr. and Mrs. Zerhouni are joined by the other speakers at the presentation.

***Below**:*
NCI director Dr. Harold Varmus (l) said Zerhouni once loaned him a pair of dress pants when the one presentable pair he had brought to France with him split; the two had an upcoming audience with French President Nicolas Sarkozy.

NIAID director Dr. Anthony Fauci (r), according to Zerhouni, had a crucial bit of advice for success in government service: "If it feels good, it's probably not allowed."

PHOTOS: ERNIE BRANSON

said NIH director Dr. Francis Collins. "We remember Elias's fearless leadership of NIH for a space of 6½ years…My appreciation has really grown…of the many things that you did right and I am the greatest beneficiary of that legacy."

Collins said Zerhouni had "both heart and spine" as he "nobly and courageously defended science" during his tenure from May 2002 until October 2008. Among Zerhouni's lasting legacies is the Common Fund, which Collins said "has really transformed NIH's ability to take on projects that are high-risk but high-reward… and successfully push them forward."

Collins said Zerhouni "got dollars out of the NIH [institute and center] directors" to support the Common Fund—then known as the Roadmap—an achievement, he quipped, that was perhaps more significant than the 1998-2003 doubling of the NIH budget.

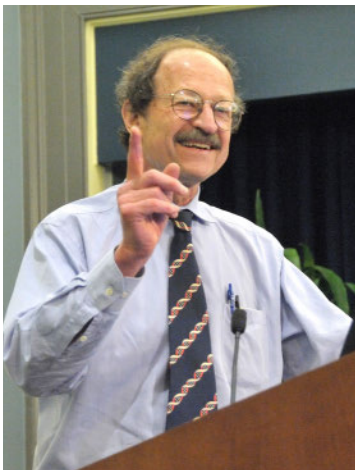
Collins also paid tribute to Zerhouni's trademark quotations, among them, "If you're not at the table, you're on the menu," and "It's never the wrong time to do the right thing."

NIAID director Dr. Anthony Fauci acknowledged that when Zerhouni was first announced as the President's selection to lead NIH 9 years ago, many were skeptical of his prospects. "You came as an outsider and you gradually, with a phenomenal amount of integrity and dignity and intelligence, became an NIH'er."

Fauci assured Zerhouni that NIH would always be his home and praised his handling of problems with "considerable grace, enormous integrity and, as always, guided by your data-driven, analytical approach and the strength of the character that gave you our respect, our admiration and ultimately the affection of all.

"We think of you among the greats of NIH," Fauci said, then repeated an assessment of Zerhouni's directorship that he had first delivered at Zerhouni's farewell ceremony in October 2008: "Elias, you did good. You did real good. You should be justifiably proud of your many accomplishments as NIH director."

NCI director Dr. Harold Varmus, whose own portrait hangs on the first floor of Bldg. 1 in tribute to his directorship of NIH from 1993 to 1999, joked to Zerhouni, "Once you are hung, you're supposed to be gone."



With Zerhouni's portrait still draped in velvet, Varmus hoped to see revealed in it "an expression that exudes generosity" and some hint of the strong intellect Varmus had once tapped when he asked Zerhouni's advice about reorganizing a "mildly dysfunctional" department at Memorial Sloan-Kettering Cancer Center, which Varmus led for 10 years following his NIH directorship.

"Show this man with command and compassion in his face," Var-

NIA director Dr. Richard Hodes (l) was among the former colleagues with whom Zerhouni reunited at the ceremony.

mus continued, before paying tribute to the breadth of cultures through which the Algeria-born Zerhouni has moved. "Elias revels in the diversity of his cultural opportunities," Varmus noted. He urged the artist, "Show this man as a very contented and cosmopolitan member of our species."

Varmus concluded with a recruitment pitch: "We are still trying to fill a few open institute directorships."

Zerhouni's wife, Dr. Nadia Zerhouni, spoke briefly about the significance of elements within the portrait, including the American flag, a globe tilted to show North Africa, a diploma from the University of Algiers and an ancient Arab medical manuscript, a copy of which the National Library of Medicine had loaned to Zerhouni.

"He's been very proud to be here," said Mrs. Zerhouni. "I should tell you, he hated the trip to and from home, but the 6½ years [as director] represented for him the tremendous life that allowed him to be the man he is today."

As guests provided an impromptu drum roll, Collins and Mrs. Zerhouni undraped the portrait on the stage of Wilson Hall.

The guest of honor then declared, "I am very touched. I feel like I'm back home…NIH is not just an institution, it's a global community."

He said that, growing up in Nedroma, a town of 12,000 people in western Algeria, he never expected to leave. Then, responding to Varmus's humorous jibes about his expensive suits and the silver Mercedes he drove to work, Zerhouni explained why the U.S. became his "country of adoption.

"You have to be yourself and you have to be fearless," he said. "I think there is only one country that would recognize that—the United States." Noting that "we've all come from different cultures and places," he said, "Trajectories like mine and yours could not happen anywhere but in our country."

Zerhouni, who is now president of global research and development at French pharmaceutical firm Sanofi-Aventis, admitted to having had "deep reservations" prior to becoming NIH director. He had consulted with Varmus about what the job would be like during a secret 5-hour meeting in the darkest recesses of the Harvard Club.

"That moment is when I said, you know what? There is no better place to spend the next 7 years than the NIH, despite all the issues," Zerhouni said. "I didn't realize how hard it was going to be, but how exciting and how rewarding it was going to be, because of the great colleagues here," he added, thanking his wife and family for their support.

"We are a community," he said. "We are a family. And yes, we sometimes have to fight over the budget."

He concluded, "I could not be more proud of the public service that I spent time rendering, and I couldn't have done it without the support of all of you here…a thousand years from now, when people look at the greatest institutions of the beginning of the 20th century, and the 21st century, NIH will be on that list…Never forget one thing: I think NIH is a source of knowledge, and knowledge comes from our ability to encourage young minds…Don't forget—young investigators!"

The crowd of friends and colleagues then gave Zerhouni, whose children and grandchildren were also present, a standing ovation.

Following a reception, the portrait was officially hung on the first floor of Bldg. 1.

The Zerhouni family poses with the new portrait, before it was put on display on the first floor of Bldg. 1.

BIKE TO WORK

CONTINUED FROM PAGE 1

***Above, from l**:*
Collins (l), accompanied by his wife Diane Baker, addresses the crowd at the Paul Rogers Plaza in front of Bldg. 1.

Lee Cramp of the Division of Property Management rode his 1891 Columbia Light Roadster through campus to the Bldg. 1 Bike to Work Day pit stop. The bicycle, a "semi-racing model," according to Cramp, has nearly all of its original parts and can reach a top speed of about 10 mph.

Yolanda Kumm of Proteus Bicycle in College Park pours a bike-powered blenderful of fruit smoothie at the Bldg. 1 pit stop.

Sean Macnee (l) and Chad DeVall of Red Barn Bicycles in Hamilton, Mont., demonstrate how to change a flat tire as part of Bike to Work Day activities on the Rocky Mountain Laboratories campus.

***At right**:*
At top, Community Policing Ofcr. Matt Catherwood of the NIH Police offers bike registration and safety tips to NICHD's Ajay Chitnis. Below, volunteers register attendees at the event, offering raffle chances and commemorative T-shirts.

PHOTOS: BILL BRANSON

even smoothies made with a bicycle-powered blender.

This year, NIH hosted three pit stops in and around campus: in front of Bldg. 1, on Executive Plaza and at the Rock Springs Business Park in partnership with Marriott International, Inc.

At pit stops, bikers enjoyed breakfast, camaraderie, raffle prizes, bike maintenance services and the wisdom of seasoned bikers like Dr. Harold Varmus, director of NCI.

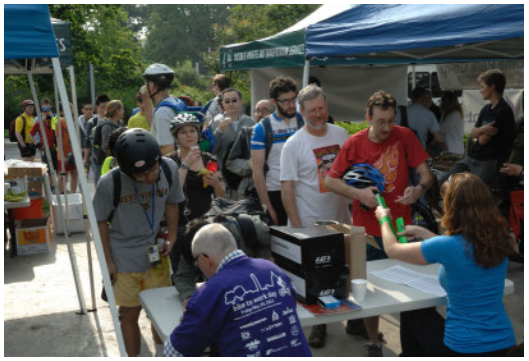
"The sweat from biking in D.C. in the summer is better than the sweat from wearing a suit on the Metro," Varmus advised the small crowd gathered at the Bldg. 1 pit stop. He bikes 24 miles roundtrip to NIH nearly every day along the verdant bike paths of Rock Creek Park.

Not every participant in Bike to Work Day was an expert at this mode of transportation. "Today, I used a different kind of internal combustion engine than I usually do," said habitual motorcyclist and NIH director Dr. Francis Collins, who powered a distinctly non-motorized bicycle to campus.

Organizer Dr. Diane Bolton said that the number of D.C.-area NIH participants in this year's Bike to Work Day was comparable to 2010. But NIH participation spiked in Montana, where NIAID's Rocky Mountain Laboratories (RML) held its first Bike to Work Day. Anita Mora, who helped organize RML's event, described it as a "huge success" and promised another in 2012.

In his remarks in front of Bldg. 1, Collins thanked the NIH Bicycle Commuter Club for its work promoting bicycle commuting. Joe Cox, project officer in the Division of Amenities and Transportation Services, echoed these sentiments.

"We have a great bike club and they're really an important force behind the success of NIH's Bike to Work Day," said Cox. He said that NIH was on track to win yet another award from the Metropolitan Washington Council of Governments for being the employer with the most participants in this yearly event.



milestones

Dr. John Ruffin (l), NIMHD director, and Dr. Sidney Altman receive the Yale University Bouchet Leadership Award.

Ruffin Receives Yale Leadership Award

Dr. John Ruffin, director of the National Institute on Minority Health and Health Disparities, was recently honored with Yale University's Bouchet Leadership Award at the 8th annual Yale Bouchet Conference on Diversity in Graduate Education, where he delivered the keynote address.

The theme for the 2011 conference was the Future of the Academy: Maintaining and Strengthening Academic Diversity in the Midst of the Current Economic and Political Climate. The conference is a collaboration between Yale and Howard University, named for Yale alumnus Dr. Edward Alexander Bouchet who, in 1876, became the first self-identified African American to earn a Ph.D. in any discipline from an American university and the sixth person to earn a Ph.D. in physics in the western hemisphere.

Ruffin discussed the influence of Bouchet's achievements on the education of generations of African Americans and underserved populations who followed. He described the state of the U.S. educational system and emphasized the importance of mentorship in shaping the career path of future leaders and scientists. "We have to create opportunities and stimulate in our young people the discipline to excel, persevere and be resilient," said Ruffin. "We cannot afford to lose brilliance to ignorance."

Despite his intellectual abilities and educational achievements, Bouchet was denied numerous professional opportunities. "We now have a chance to remove systematic and institutional barriers that can hamper the professional advancement of racial and ethnic minorities," said Ruffin.

Ruffin was honored along with Dr. Sidney Altman, Sterling professor of molecular, cellular & developmental biology and professor of chemistry, past dean of Yale College, who was awarded the Nobel Prize in chemistry in 1989 for discovering catalytic properties of RNA.

Bornstein To Receive Hall Award for Developmental Psychology

Dr. Marc H. Bornstein, senior investigator and head of NICHD's section on child and family research, will receive the G. Stanley Hall Award at the American Psychological Association convention in Washington, D.C., on Aug. 6. The award recognizes "distinguished contributions to developmental psychology, including contributions in research, student training and other scholarly endeavors. Evaluations are based on the scientific merit of the individual's work, the importance of this work for opening up new empirical or theoretical areas of development psychology and the importance of the individual's work in linking developmental psychology with issues confronting the larger society or with other disciplines."

OD Alumnus Gee Dies at 92

Dr. Helen Hofer Gee, who retired in 1987 as chief, Analysis and Evaluation Branch, Office of the Director, passed away at age 92 on May 7 at Brook Grove Nursing and Rehabilitation Center in Olney.

She began her NIH career in 1963 at the National Institute of Child Health and Human Development as a behavioral sciences consultant. In 1972, she became director of program evaluation, which she defined as an effort to use social science methods to gain a better understanding of how science progresses.

"She was a pioneer on campus for evaluation research of many of NIH investments in research and research training, particularly in the use of such metrics as bibliometrics, citation analysis and patent analysis," said Dr. Lois Cohen, consultant for the National Institute of Dental and Craniofacial Research.

Gee is survived by a sister, Clara Armstrong of Bishop, Calif. Donations in Gee's memory may be made to the Montgomery County Humane Society, 14645 Rothgeb Dr., Rockville, MD 20850.

digest

Roughly 19 percent of young adults may have high blood pressure, according to analysis of an NIH-supported study.

Study Shows 19 Percent of Young Adults Have High Blood Pressure

Roughly 19 percent of young adults may have high blood pressure, according to an analysis of the National Longitudinal Study of Adolescent Health (Add Health), which is supported by NIH.

The researchers took blood pressure readings of more than 14,000 men and women between 24 and 32 years of age who were enrolled in the long-running study. The analysis was conducted by scientists at the University of North Carolina at Chapel Hill and the findings were published online in *Epidemiology* in late May.

The findings differ from those of the National Health and Nutrition Examination Survey (NHANES), which reported high blood pressure in 4 percent of adults 20 to 39 years of age. The study authors were unable to pinpoint any reasons for the difference between the two studies.

"The Add Health analysis raises interesting questions," said Steven Hirschfeld, associate director for clinical research at NICHD, which provides major funding for the study. "Investigations into the reasons underlying the reported differences between the Add Health and NHANES findings will no doubt yield additional insight into the measurement of high blood pressure in the young adult population."

High blood pressure is a serious condition that can lead to coronary heart disease (also called coronary artery disease), heart failure, stroke, kidney failure and other health problems.

Scientists Find Genetic Basis for Key Parasite Function in Malaria

Snug inside a human red blood cell, the malaria parasite hides from the immune system and fuels its growth by digesting hemoglobin, the cell's main protein. The parasite, however, must obtain additional nutrients from the bloodstream via tiny pores in the cell membrane. Now, investigators from the National Institute of Allergy and Infectious Diseases have found the genes that malaria parasites use to create these feeding pores.

The research was led by Dr. Sanjay A. Desai of NIAID's Laboratory of Malaria and Vector Research. In 2000, he co-discovered the primary type of feeding pore on parasite-infected blood cells, an ion channel known as the plasmodial surface anion channel (PSAC). Ion channels are pore-forming proteins that allow the movement of calcium, sodium and other particles into or out of the cell. A report of the team's new findings, which build on this original discovery, appeared May 26 online in *Cell*.

"Despite recent progress in controlling malaria worldwide, the disease continues to kill more than 700,000 people, primarily young children, every year," said NIAID director Dr. Anthony Fauci. "Dr. Desai and his colleagues have discovered the genetic basis of a fundamental aspect of malaria parasite biology, and in doing so, they have opened up potential new approaches to developing antimalarial drugs."

The NIAID team screened nearly 50,000 chemicals for their ability to block nutrient uptake by cells infected with either of two genetically distinct lines of *Plasmodium falciparum* malaria parasites.

The discovery of parasite genes required for PSAC activity opens up several new research directions, said Desai. For example, development of antimalarial drugs that target these channels could be accelerated.

Mexican Flu Pandemic Study Supports Social Distancing

Eighteen-day periods of mandatory school closures and other social distancing measures were associated with a 29 to 37 percent reduction in influenza transmission rates in Mexico during the 2009 pandemic. The research was carried out by scientists at the Fogarty International Center and published in *PLoS Medicine*.

The social distancing measures implemented by the Mexican health authorities in spring 2009 were effective in reducing disease transmission by more than one-third, the study found. Social distancing interventions can be implemented during unusual infectious diseases outbreaks and include school closing, closure of movie theaters and restaurants and the cancellation of large public gatherings. Mexico implemented a nationwide mandatory school closure policy during an 18-day period in late April and early May 2011. The United States implemented school closure interventions on a local basis during the 2009 pandemic, but the impact of these interventions has yet to be evaluated.

The study suggests that school closure and other measures could be useful to mitigate future influenza pandemics.

Investigators Observe Immune-Boosting Properties of Vitamin A

A recent study led by Dr. Yasmine Belkaid and colleagues in NIAID's Laboratory of Parasitic Diseases helps shed light on how vitamin A regulates the immune system at mucosal surfaces—the moist linings of the mouth, lungs and gastrointestinal (GI) tract. The study, published in the March issue of *Immunity*, demonstrates in mice that certain immune T cells use vitamin A metabolites to respond to infection or vaccination and maintain the health of the host.

Often the GI tract is where the immune system first comes in contact with proteins and microorganisms and receives signals that indicate whether a substance is harmful or helpful. The study adds to the evidence suggesting that vitamin A metabolism helps T cells in the GI tract respond appropriately to both beneficial and harmful challenges.

Helping Maintain Balance

Vitamin A is found in foods such as carrots, spinach and sweet potatoes. When the body breaks down vitamin A, a key product is retinoic acid, which is needed for growth, development and immunity. Previously, Belkaid's group demonstrated that retinoic acid cues T cells in the gut to differentiate into cells that, when needed, help maintain immune tolerance. Without this brake on the immune response, immune cells can attack helpful bacteria naturally found in the gut, harmless proteins in food or even the body's own cells, resulting in conditions like autoimmune diseases and allergies.

In this latest study, Belkaid's lab collaborated with Dr. Pamela Schwartzberg of NHGRI's Genetic Disease Research Branch to examine the role of retinoic acid in the immune response to a disease-causing parasite and vaccination. The investigators examined four groups of mice: those given nearly identical diets, except one group received food lacking vitamin A and the other group received food with sufficient vitamin A, and mice with and without a receptor for retinoic acid. Mice fed vitamin A-deficient diets or mice lacking the retinoic acid receptor did not mount a robust T-cell response to infection or vaccination. Mice without vitamin A deficiency and with the retinoic acid receptor cleared the infection and responded to the vaccine.

The vitamin A-deficient mice were able to clear infection and mount an appropriate immune response to vaccination after receiving retinoic acid, demonstrating that the deficiency is readily reversible. Importantly, the NIH team also found that retinoic acid played a direct role in the early response of T cells, providing fuel necessary for T cells to protect mucosal surfaces against infection and foster immunosurveillance.

Eat More Vegetables

Taken together, the results of the new study and Belkaid's previous work suggest that vitamin A is a strong regulator of the immune response in the gut, helping adjust the response to appropriately handle encounters with both helpful and harmful substances. While the new data show that mice need retinoic acid to carry out this role, additional studies are needed to determine if the same is true in humans.

What is clear is that proper amounts of vitamin A play an important role in human health. The World Health Organization estimates that approximately 250 million preschool children are deficient in vitamin A, which is associated with increased susceptibility to diarrheal disease and poorer response to vaccination.—**Julie Wu**

Six new members of the NIDDK advisory council meet with NIDDK director Dr. Griffin Rodgers (third from l) during a break at the May 11 council meeting. They are (from l) Robin Nwankwo, Dr. William Steers, Dr. Mark Zeidel, Dr. Judy Cho, Dr. Thomas Robinson and Dr. Domenico Accili.

Six Join NIDDK Advisory Council

Six new members recently joined the advisory council of the National Institute of Diabetes and Digestive and Kidney Diseases.

Dr. Domenico Accili is a professor of medicine at Columbia University and director of Columbia's Diabetes and Endocrinology Research Center. His laboratory identified a family of DNA-binding proteins that regulate the response to insulin and glucose in many cell types, including pancreatic beta cells.

Robin Nwankwo is a diabetes educator at the University of Michigan with expertise in nutrition, behavior and diabetes self-management. Her work focuses on empowering people with diabetes to improve self care by supporting behavior change using methods that respect cultural differences and preferences.

Dr. Judy Cho is an associate professor of medicine and genetics and director of the Inflammatory Bowel Disease Center at Yale University. Her research focuses on identifying genetic variation that affects susceptibility to and expression of inflammatory bowel disease.

Dr. Thomas Robinson is the Irving Schulman professor in child health and professor of pediatrics and medicine at Stanford University School of Medicine and director of Stanford's Center for Healthy Weight. His research focuses on testing interventions to prevent and reduce obesity, improve nutrition and increase activity.

Dr. William Steers is chair of the department of urology at the University of Virginia. He is an editor of the *Journal of Urology* and president of the American Board of Urology.

Dr. Mark Zeidel is chief of medicine at Beth Israel Deaconess Hospital and has broad expertise in clinical renal and nephrology research. He is an elected member of both the American Society of Clinical Investigation and the Association of American Physicians.

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Rain Can't Daunt Police Awareness Day Picnic

When you call the police, you never get the response, "We'll come as soon as it stops raining." Similarly, the 17th annual Police Awareness Day barbecue on the lawn of Bldg. 1 was unbothered by steady rain on May 18.

Sure, the U.S. Park Police horses remained in their trailers, and no trained dogs cavorted on the lawn of Bldg. 1. Nor did the nifty red all-terrain emergency vehicle get unhitched from its trailer. But four grills were lit and churning out a steady volume of chicken breasts, Italian sausages, burgers, baked beans and hot dogs, which were served under canopies erected on the Bldg. 1 front parking lot.

The staffers were damp but cheery as a smaller than usual crowd lined up for their smoked lunches. Most patrons elected to have their meals bagged up for consumption elsewhere, but the food was just as tasty indoors as out.

PHOTOS: MICHAEL SPENCER, A.P. WHITE

On hand for the 17th annual Police Awareness Day picnic are (kneeling, from l) Corp. Brian Sims and Corp. Wallace Carter. In middle row are (from l) Ofcr. Greg Hill, Lisa Campbell, Maj. Patricia Haynes, Carmen Kaplan, Karen Heflin, Regina Gray, Lt. Udon Cheek, Corp. John Coe. At rear are (from l) Corp. Derek Jeter, Lt. Lawrence Brown, Chief Alvin Hinton, Sgt. Bob Drummond, Ivelisse Rodriguez, Kevin Lippold, Maj. Bill Alford, Ofcr. Matt Catherwood, MPO Duane Moe and MPO Jeff Youmans.

A little rain can't dampen the picnic. Shown are (from l) Rodriguez, Kaplan, Gray, Sims and Carter.

Manning grills at the picnic are (from l) Drummond, Lt. Marco Kittrell and Brown.

***At right**:*
Taking cover on a drizzly day under the awning of the NIH Fire Department's hazardous material response unit are (from l) Fire Technician Simon Thomas; Ulysses Mitrakas of the fleet management section, OLAO; Master Firefighter Chuck Weaver; Master Firefighter Brian Wagner; Fire Technician Delonte Stephens; Fire Technician Jason White and Capt. Joe D'Ambrosio.